

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) A multi-agent caching system for optimizing a bidding process for resources, comprising:

a Bid Manager bid manager agent for issuing a call for bids for usage of said resources, receiving said bids and selecting a best bid from among said bids, wherein each of

5 said bids defines a predetermined context;

a plurality of Bidder bidder agents for issuing said bids according to predetermined bidding policies in response to said call for bids, wherein one of said Bidder bidder agents issues said best bid and provides said resources upon selection of said best bid by said Bid Manager bid manager; and

10 a plurality of ResourceAdapters resource adapters for providing a uniform interface to access APIs application program interfaces of said resources, one of said ResourceAdapters resource adapters being a CachingAdapter caching adapter for maintaining cached bids for predetermined contexts from predetermined ones of said Bidders bidder agents, and for receiving from said Bid Manager bid manager said call for bids and issuing said cached bids to said Bid Manager bid manager instead of requiring said predetermined Bidders bidder agents to issue said bids, and a NoCachingAdapter no-caching adapter for receiving from said Bid Manager bid manager said call for bids, re-issuing said call for bids to ones of said Bidders bidder agents other than said predetermined Bidders bidder agents, receiving said bids from said ones of said Bidders bidder agents other than said predetermined Bidders bidder agents and sending said bids to said

2. (Currently amended) The multi-agent caching system of claim 1, wherein said ~~CachingAdapter~~ caching adapter updates said cached bids in response to new contexts of said bids.

3. (Currently amended) The multi-agent caching system of claim 1, wherein said ~~Bid Manager~~ bid manager selects said best bid by sorting said ~~ResourceAdapters~~ resource adapters according to decreasing values of said bids and selecting a first available one of said ~~Bidder~~ bidder agents according to said ~~ResourceAdapters~~ resource adapters as sorted.

4. (Original) The multi-agent caching system of claim 1, wherein each said context is defined by a discrete parameter value.

5. (Currently amended) The multi-agent caching system of claim 1, wherein each said ~~Bidder~~ bidder agent sends a notification message to said ~~Bid Manager~~ bid manager agent in the event of any changes to its bidding policies, in response to which said ~~Bid Manager~~ bid manager agent updates said ~~CachingAdapter~~ caching adapter.

6. (Currently amended) The multi-agent caching system of claim 5, wherein said bidding policies are stored via said ~~CachingAdapter~~ caching adapter as entries in a table and said ~~Bid Manager~~ bid manager agent updates individual ones of said cached bids to reflect said

changes in said bidding policies.

7. (Currently amended) The multi-agent caching system of claim 5, wherein said bidding policies are stored via said ~~Caching Adapter~~ caching adapter as general rules and said ~~Bid Manager~~ bid manager agent clears all of said cached bids.

8. (Currently amended) An optimized method of acquiring bids from a plurality of ~~Bidders~~ bidder agents for resources, comprising the steps of:

issuing a request for bids for usage of said resources, wherein each of said bids defines a predetermined context;

5 accessing a cache of stored bids and related contexts to determine whether said cache contains bids defining said predetermined context;

issuing a call for bids to said ~~Bidders~~ bidder agents in connection with which no bids defining said predetermined context are stored in said cache, in response to which said ~~Bidders~~ bidder agents return bids to said ~~Bid Manager~~ bid manager and said bids are stored in said cache 10 along with said predetermined context; and

retrieving from said cache said bids defining said predetermined context previously stored by said ~~Bidders~~ bidder agents.

9. (Original) The optimized method of claim 8, further comprising the step of updating said stored bids in response to new contexts of said bids.

10. (Currently amended) The optimized method of claim 8, further comprising the step of selecting a best bid by sorting said bids according to decreasing values of said bids and selecting a first available one of said Bidders bidder agents according to said sorting.

11. (Original) The optimized method of claim 8, wherein each said context is defined by a discrete parameter value.

12. (Original) The optimized method of claim 8, further comprising the step of sending a notification message to said Bid Manager in the event of any changes to its bidding policies, in response to which said Bid Manager updates said cache.

13. (Original) The optimized method of claim 12, further comprising the step of storing said bidding policies as entries in a table.

14. (Original) The optimized method of claim 13, further comprising the step of updating individual ones of said cached bids for updating said cache to reflect said changes in said bidding policies.

15. (Original) The optimized method of claim 12, further comprising the step of storing said bidding policies as general rules.

16. (Original) The optimized method of claim 15, further comprising the step of

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clearing all of said cached bids for updating said cache to reflect said changes in said bidding policies.

17 (New) An apparatus for optimizing a bidding process for resources, the apparatus comprising:

a bid manager agent comprising means for issuing a call to bidder agents for bids for usage of said resources, means for receiving said bids and means for selecting a best bid from among said bids, wherein each of said bids defines a predetermined context;

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a plurality of resource adapters for providing a uniform interface to access application program interfaces of said resources, one of said resource adapters being a caching adapter comprising means for maintaining cached bids for predetermined contexts from predetermined ones of said bidder agents, receiving from said bid manager said call for bids and issuing said cached bids to said bid manager instead of requiring said predetermined bidder agents to issue said bids, and a no-caching adapter comprising means for receiving from said bid manager said call for bids, re-issuing said call for bids to ones of said bidder agents other than said predetermined bidder agents, receiving said bids from said ones of said bidder agents other than said predetermined bidder agents and sending said bids to said bid manager.
